Laser Communications Relay Demonstration Image Feature

NASA's Laser Communications Relay Demonstration Mission Leaves Goddard Space Flight Center

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Images: Waiting for shipment

Credit: TBD

On Jan. 22, 2020, the Laser Communications Relay Demonstration (LCRD) flight payload was delivered to Northrop Grumman's facility in Sterling, Virginia. There the payload will be integrated onto the U.S. Air Force's Space Test Program Satellite 6 (STPSat-6) and prepared for launch. LCRD will be NASA's first end-to-end optical relay, sending and receiving data from missions in space to mission control on Earth.

LCRD will demonstrate the robust capabilities of optical communications. Optical communications provides significant benefits for missions, including decreased size, weight and power requirements over comparable radio frequency communications systems, as well as bandwidth increases of 10 to 100 times more than radio frequency systems.

The LCRD mission is funded through NASA's Space Technology Mission Directorate and the Space Communications and Navigation program (SCaN) within NASA's Human Exploration and Operations Mission Directorate.


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